

Skylab: Stepping stone to today's ISS

By Lisa Tidwell



An overhead view of the Skylab space station cluster in Earth orbit as photographed from the Skylab 4 Command and Service Module (CSM) during the final fly-around by the CSM before returning home.
sl4-143-4706

Astronaut Jack R. Lousma, Skylab 3 pilot, participates in the August 6, 1973, extravehicular activity (EVA) during which he and Astronaut Owen K. Garriott, science pilot, deployed the twin pole solar shield to help shade the Orbital Workshop (OWS).
sl3-122-2611

Floodlights illuminate this nighttime view of the Skylab 3/Saturn 1B space vehicle at Pad B, Launch Complex 39, Kennedy Space Center, Fla., during prelaunch preparations.
s73-32568



The Skylab space station was launched May 14, 1973 by a Saturn V launch vehicle, the same kind that sent Astronauts to the Moon during the Apollo Space Program. The Skylab Program had two major objectives: to prove that humans could live and work in space for extended periods, and to expand our knowledge of solar astronomy well beyond Earth-based observations.

Successful in all respects despite early mechanical difficulties, three three-man crews occupied the Skylab workshop for a total of 171 days and 13 hours. It was the site of nearly 300 scientific and technical experiments: medical experiments on humans’ adaptability to microgravity, solar observations and detailed Earth resources experiments.

Almost immediately after the unmanned Skylab 1 launch, technical problems developed due to vibrations during liftoff. A critical meteoroid shield ripped off, taking one of the craft’s two solar panels with it, and a piece of the shield wrapped around the other solar panel.

Skylab was maneuvered so its Apollo Telescope Mount solar panels faced the Sun to provide as much electricity as possible for the station. Doing so without the now-lost meteoroid shield, however, caused workshop temperatures to increase to 126 degrees Fahrenheit.



Missions overview

- Skylab 1**
May 14, 1973, unmanned
- Skylab 2**
May 25, 1973 – June 22, 1973
Charles Conrad, Jr., Paul Weitz, Joseph Kerwin
- Skylab 3**
July 28, 1973 – September 25, 1973
Alan Bean, Jack Lousma, Owen Garriott
- Skylab 4**
November 16, 1973 – February 8, 1974
Gerald Carr, William Pogue, Edward Gibson